

The infrared spectrum of polyacetylene displays characteristic absorption bands. The x-axis represents the wavenumber in cm⁻¹, ranging from 4000 to 500. The y-axis represents transmittance. Key features include a sharp peak at approximately 3300 cm⁻¹ (C-H stretching), a strong, broad absorption band between 2100 and 2260 cm⁻¹ (C≡C stretching), and a complex series of peaks in the 1400-1600 cm⁻¹ region, including the prominent trans band at 1640 cm⁻¹ and the gauche band at 1450 cm⁻¹. The fingerprint region below 1500 cm⁻¹ shows numerous sharp, well-defined peaks.

Fig. 1

TOP OF CHART

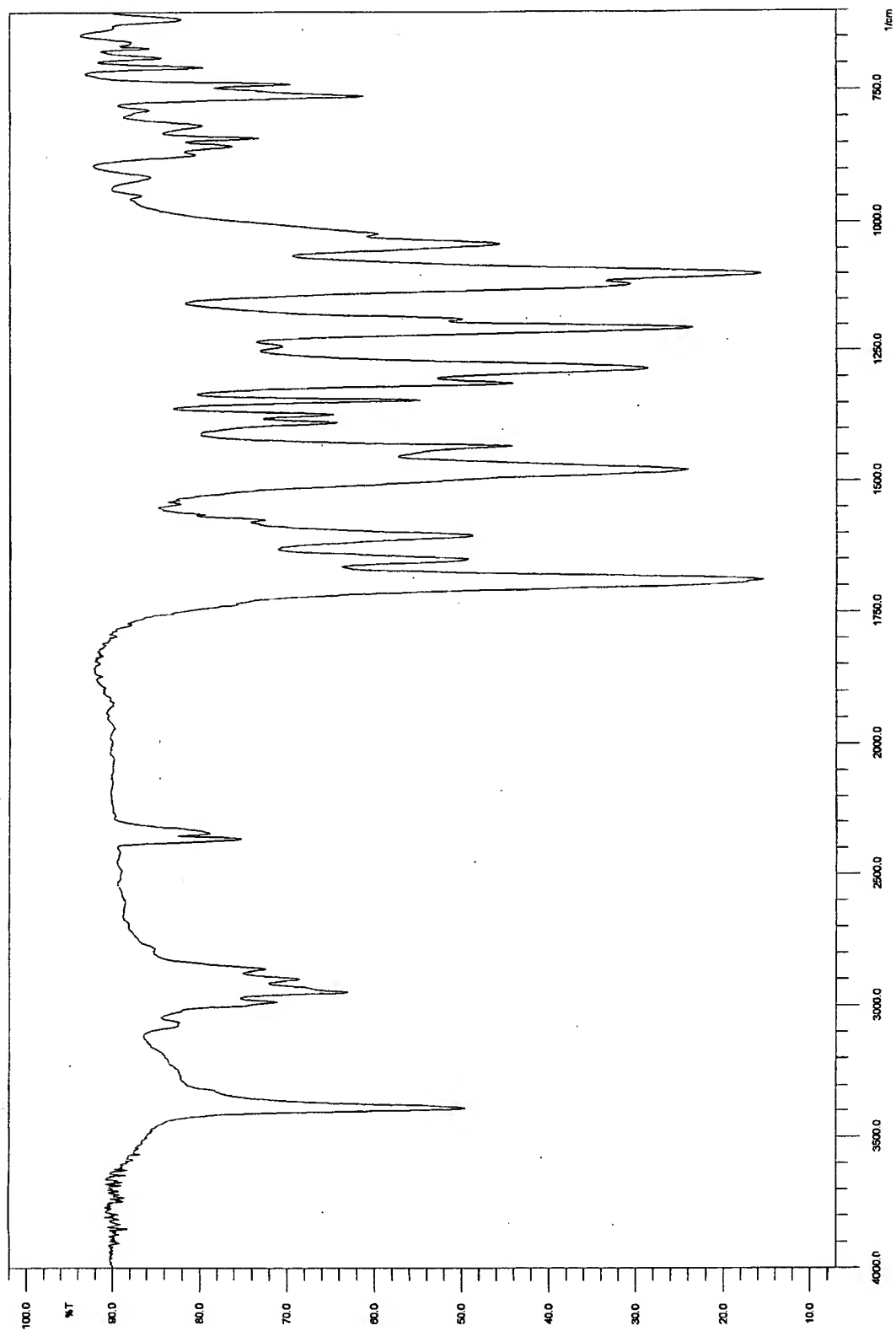


Fig. 2

TOP SECRET

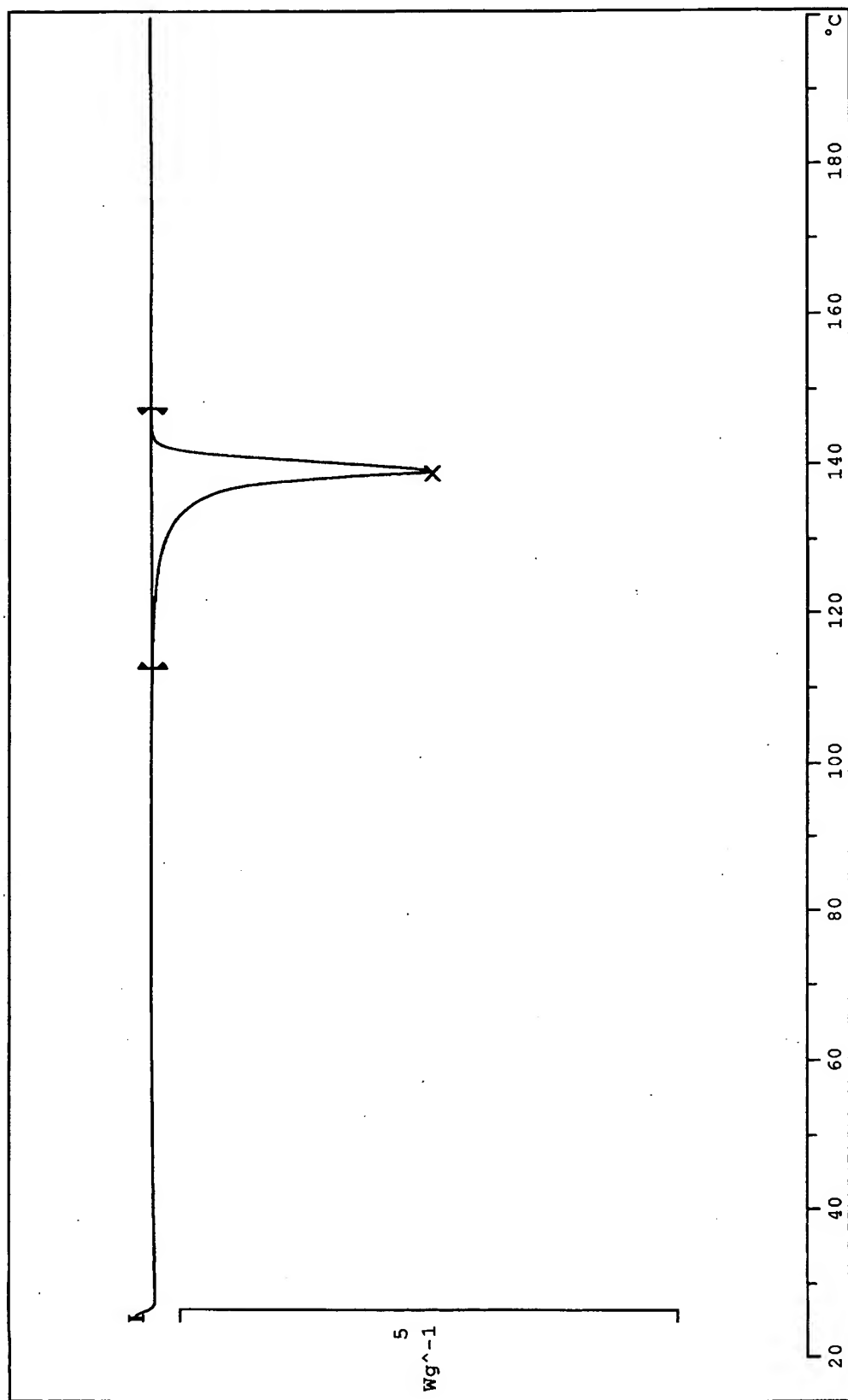


Fig. 3

2

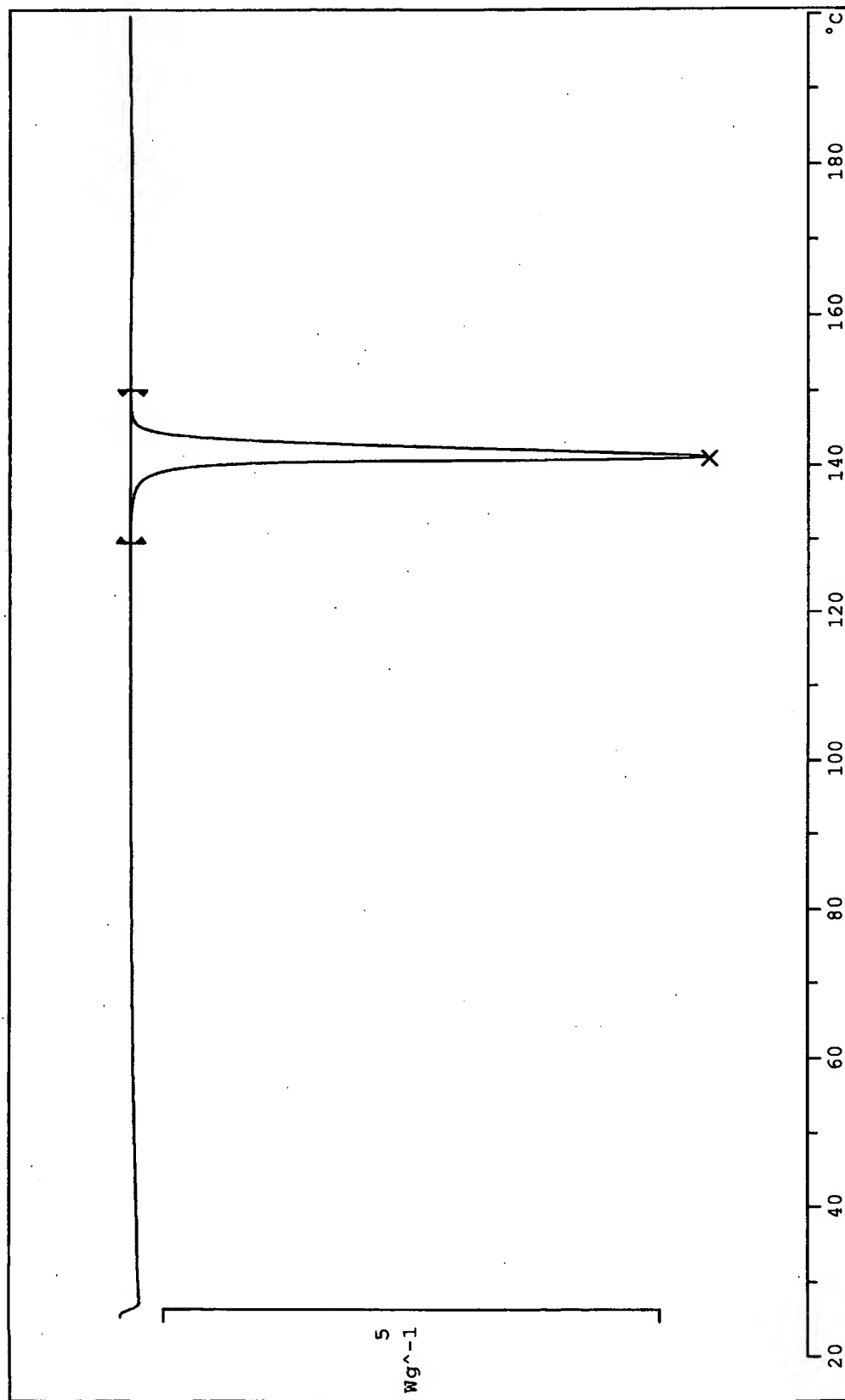


Fig. 5

IR Spectrum of 3,4,5-trimethoxybenzoic acid

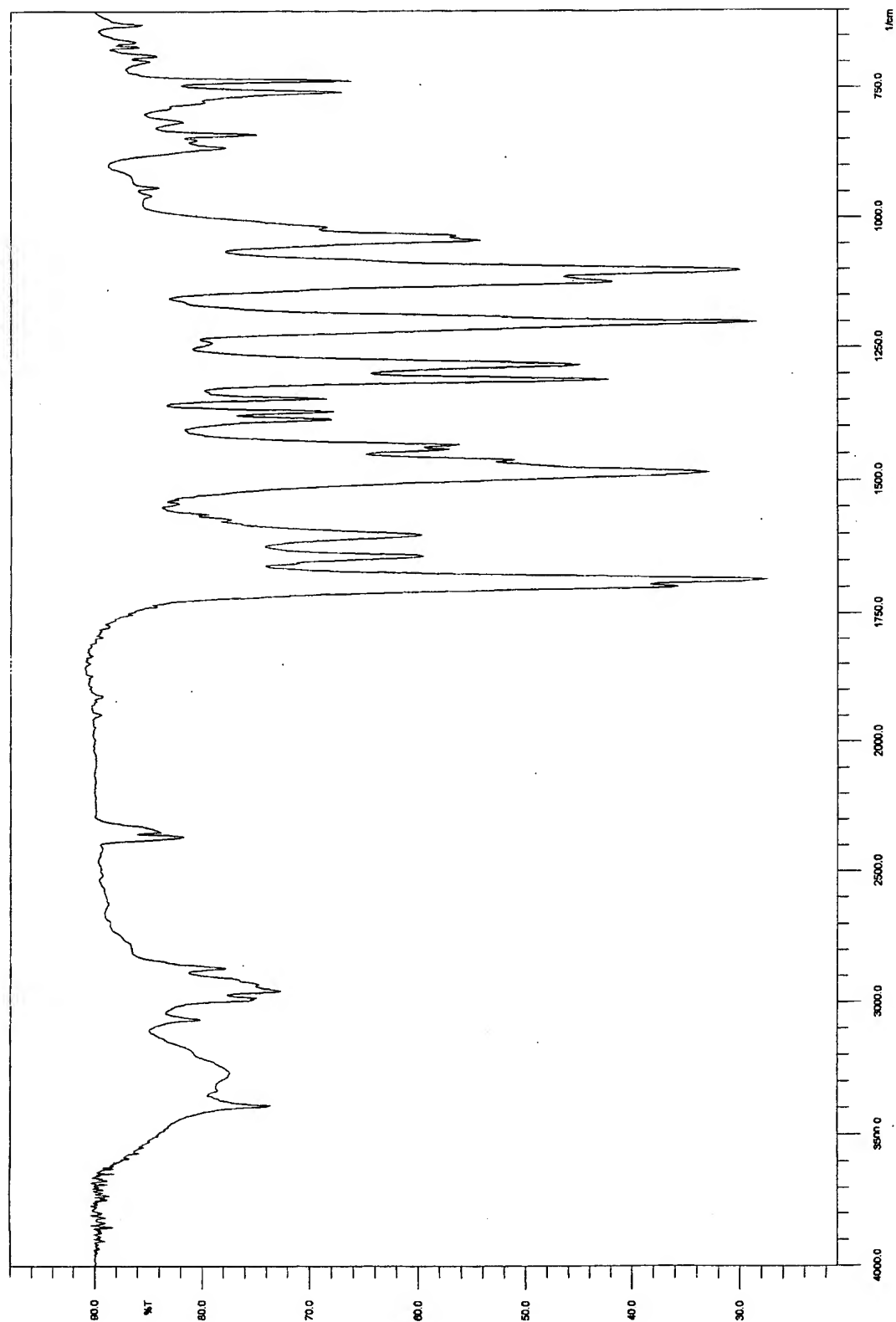


Fig. 6

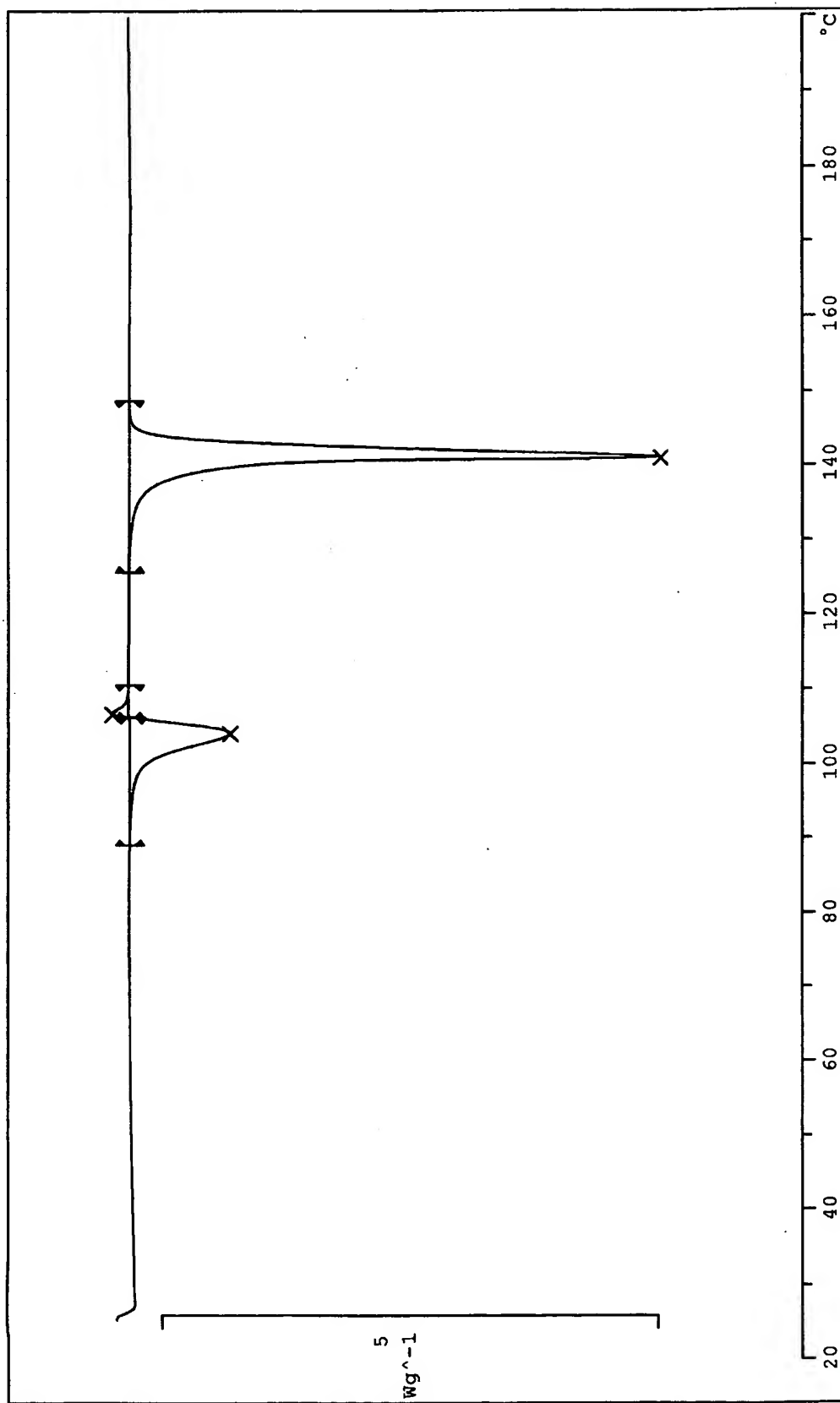


Fig. 7

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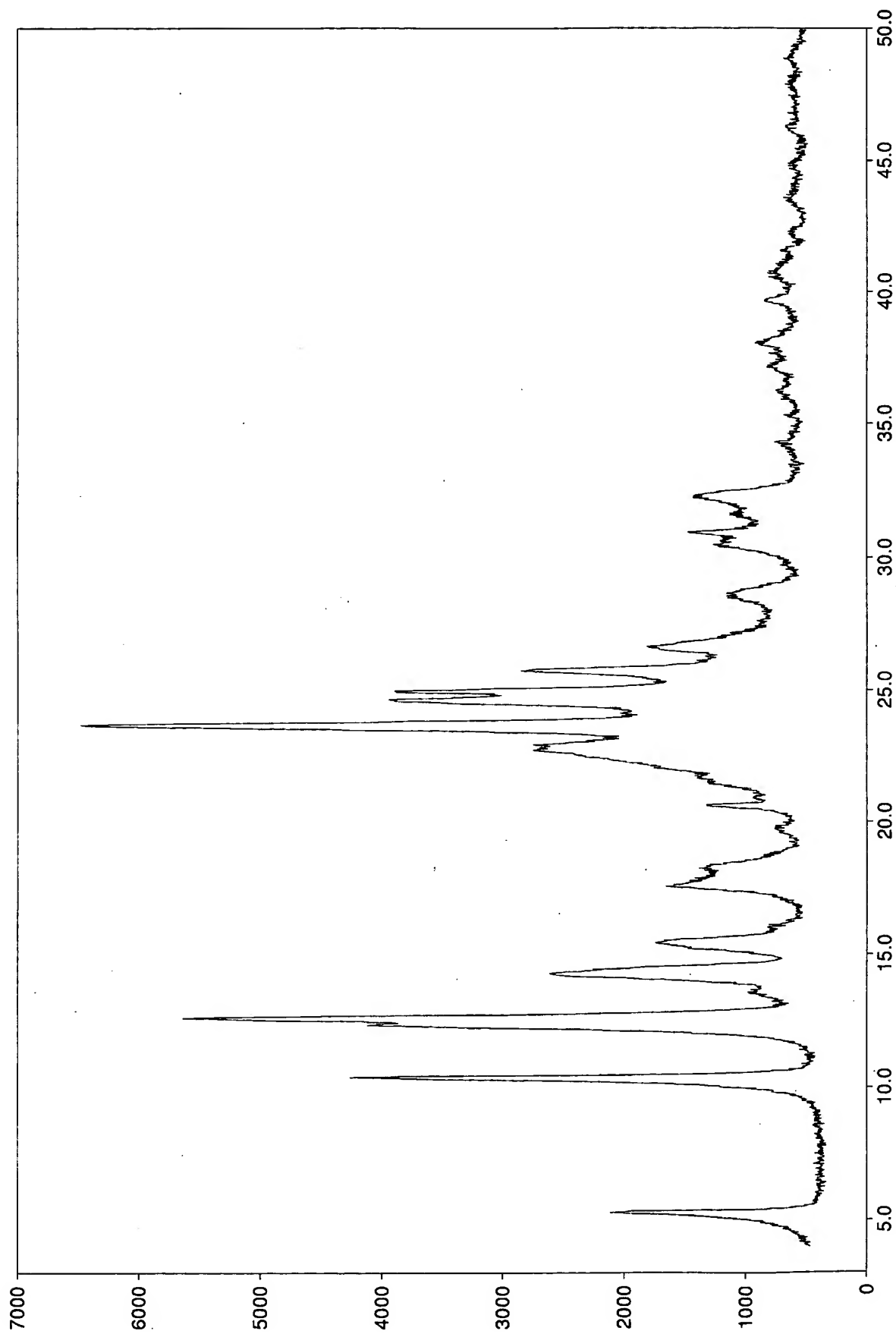


Fig. 8